

Application No:10/646,784  
Amendment Dated: March 26, 2007  
Response to Office Action of October 3, 2006

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## AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0050] with the following paragraph:

[0050] The complete sequence nucleotide sequence for MIS is disclosed in U.S. Patent No.5,047,336, which is hereby incorporated by reference. The DNA sequences of this invention are selected from the group consisting of: (a) the DNA sequences

AAGGTCG CGGCAGAGGA GATAGGGGTC TGTCTGAC AAACACCCCA CCTTCCACTC  
GGCTCACTTA AGGCAGGCAG CCCAGCCCTT GGCAGCACCC ACGATGCGGG ACCTGCCTCT  
CACCAGCCTG GCCCTAGTGC TGTCTGCCCT GGGGGCTCTG CTGGGGACTG AGGCCCTCAG  
AGCAGAGGAG CCAGCTGTGG GCACCACTGG CCTCATCTTC CGAGAAGACT TGGACTGGCC  
TCCAGGCATC CCACAAGAGC CTCTGTGCCT GGTGGCACTG GCGGGGACA GCAATGGCAG  
CAGCTCCCCC CTGCGGGTGG TGGGGGCTCT AAGCGCTAT GAGCAGGCTT TCCTGGGGGC  
CGTGCAGAGG GCCCGCTGGG GCGCCGAGA CCTGGCCACC TTCGGGGTCT GCAACACCGG  
TGACAGGCAG GCTGCCCTGC CCTCTCTACG GCGGCTGGGG GCCTGCTGTC GGGACCCTGG  
GGGCGAGCGC CTGGTGTGCC TACACCTGGA GGAAGGTATG TGGGGCCAG CCCCAGCTT  
GGCACCGCCG TCTTCCCTCA GGTGGGCCGG GTCTCTCTAG GGAAGATCAG GGGCTGGCAG  
AGCCCCCACC CTGGGCAGGG AAGCTGTGGT CTTGTTCTTA GCACTGGGTT GCGGGTCCGT  
GGCTGGAAG GTGGGCACCA CACTCTGTCC TGTCCCGAA GCCCAGCTCT TAGACTTGCC  
CCTGCTCGG TGCCAGGAG AGAGCTGCTG CCTTCTCCCC ACCCTGAAG ACGACGCAGG  
GCTCGGGGCC AGTGAACCC TTCTTCCAC AGCCCGAGCC TGTTCTCAGG GCGCTGGCC  
TAAGATACTC CTGCGGGGA AGGGGCTTCA TCGGGCACCC CAACCCAGAG ACCCCAGGGC  
GSCAGCCCCA CCCACAGCCT CAGACGCAGC CCCTGCTGC CCCTGCGTC ACCGCTCCCT  
GGCTGCAGGA AGCAGCTAA GAGGGGCACC CTTGTCCCCC GCTTGAGGTC CCCTGCACAG  
TGGCCAGAGC GGCAGGGACA GATCCCAAG ATTCCCGGG GGTGTGGCCT TCAATGGCTC  
AGGCGTCCCC TGCTGTCCG GCTGCAGTGA CCTGGGAGCC AACACCCCTG CTGAGGTTCC  
AGGAGCCCCC GCCTGGAGGA GCTGGCCCCC CAGAGCTGGC GCTGCTGGTG CTGTACCTG  
GGCTGSCCC TGAGGTCACT GTGACGAGGG CTGGGCTGCC GGTGCCCCAG GTACCAAGGA  
GTTGCATGGG SCAGTGCCCC GGCCTGGCG GGGGGCATGA ATTTGTTGCA GGGTCTGCAG  
TACTGAGAAC AGCGTAGAAC CAGTGGCGAT GGGAGGAGG GGACCGGTAG AGCGGGGCTG  
GGTAAGCCTC CATCCAGCG GGTGAGCCC TGCTCTCCG AGAGCCTCTG CCCCTCCGA  
GACACCGCT ACCTGGTGT AGCGGTGAC CGCCCTGCG GGGCTGGCG CGGCTCCGGG  
CTGGCCTTGA CCTGCAGCC CCGCGGAGAG GTAGGTCCG CTGGGAGAGG GACGGGAGC  
CGGCTGACT GCGCCCGGCG CCCCAGCCCC TGAGCCAGCC GCGTCCCCAC CCACCGCAGA  
CTCCCGCTG AGTACCGCCC GGCTGCAGGC ACTGCTGTTT GCGACGACC ACCGCTGCTT  
CACACGATG ACCCCGGCCC TGCTCTGCT GCGCGGCTCC GAGCCCGCG CCGTGCCTGC  
GCACGGCCAG CTGGACACCG TGCCCTTCCC GCGCGCCAGG TGCGGCGAGG CACCGGACA  
CGGGGCAGGA GCGGGC3GG GCGGCGTGGC CTGTTGGCG CTCTCAACTC CTCCAATTGC  
GGTTCAGG CCATCCCGG AACTCGAGGA GTGCCACCC AGCGCAGACC CCTTCTTGA  
GACGCTCAG CGCTGGTGC GGGCGCTGG GGTCCCCCG GCGCGGCTT CCGCGCTCGG  
CCTGGCCTG GATCGGAGC CGCTGGCCGG CTCCCGCAG GCGCTAGTCA ACCGTGGA  
CCCCCGGCG CTGGAGCGCC TACTCGACG CGAGGAGCC CTGCTGCTG TGCAGAGCC  
CACTGCGGC ACCACCGGG ATCTCGGCC CTGCACGAC CCCACGTGG GCGGTGGG

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CACGCCCCCTG GCGCGCCGCG TGGCTGCTGA ACTGCAAGC3 GCGGCTGCCG AGCTGCGAAG  
CTTCCCGGGT CTGCTTCGCG CCACAGCCCC GCTGCTGGCG CGCTGCTCG CGCTCTGCC  
AGGAGGCCCC GCGGCTCTCG GCGATCCCTT GCGAGGCTG CTGCTCCTGA AGGCGCTGCA  
GGGCTTGCGC GTGGAGTGGC GCGGGCGGGA TCCGCGCGGG CCGGCTCGGG CACAGCGCAG  
CGCGGGGGCC ACCGCGCGCG ACGGGCGGTG CGCGCTGCGC GAGCTCAGCG TAGACCTCCG  
CGCGGAGCGC TCGTACTCA TCCCGAGAC CTACCAGGCC AACAAATTGCC AGGGCGTGTG  
CGGCTGGCCT CAGTCCGACC GCAACCCGCG CTACGGCAAC CACGTGGTGC TGCTGCTGAA  
GATGCAGGCG CGTGGGGCC3 CCTGGGCGCG CCCACCCTGC TGCTGCCCCA CCGCTACGC  
GGCAAGCTG CTCATCAGCC TGTCGGAGGA ACGCATCAGC GCGCACCACG TGCCCAACAT  
GGTGGCCACC GAGTGTGGCT GCGGTGACC CTTGCGCCCG GCGGACTCCT GCGGCGAGGG  
TCCGAGCGCG CCCAGCTCG CGCCCTTCC CATATTATT CGGACCCCA GCATCGCCCC  
AATAAGACC ASCAAGC

(the sequence of the human gene) (SEQ ID NO:1):

AGCACCC ACGATGCGGG ACCTGCCTCT  
CACCAGCCTG GCCCTAGTGC TGCTGCCCT GGGGGCTCTG CTGGGACTG AGGCCCTCAG  
AGCAGAGGAG CCAGCTGTGG GCACCACTGG CCTCATCTTC CGAGAAGACT TGGACTGGCC  
TCCAGGCATC CCACAAGAGC CTCTGTGCTT GGTGGCACTG GCGGGGACA GCPATGCCAG  
CAGCTCCCC CTGCGGGTGG TGGGGCTCTT AGCGCCTAT GAGCAGGCTT TCCTGGGSGC  
CGTGCAGAGG GCCCGCTGGG GCGCCGAGA CTTGGCCACC TTGGGGTCT GCAACCCGG  
TGACAGGCAG GCTGCCTTGC CCTCTCTACG GCGGCTGGGG GCTGSGTGC GGGACCTGE  
GGGGCAGCGC CTGGTGTGCC TACACCTGGA GGAAGGTATG TGGGGCCAG CCCCAGCTT  
GGCACGCGCG TCTTCCCTCA GGTGGGCGCG GTCTCTCTAG GGAAGATCAG GGGCTGGCAG  
AGCCCCCACC CTGGGCAGGA AGGCTGTGGT CTTGTTCCTA GGAAGTGGTT GCGGGTCCGT  
GGCCTGGAAG GTGGGCACCA CACTCTGTCC TGTCCCGAA GCCAGCTCT TAGACTTGCC  
CCTGCTCGG TGCCAGGAG AGAGCTGCTG CCTTCTCCCC ACCCTGAAG ACGACGAGG  
GCTCGGGGCC AGTGAACCC TTCTTCCAC AGCCCCAGCC TGTCTCAGG GCGCTGGCC  
TAAGATACTC CTGCGGGGA AGGGGCTTCA TCGGACACC CAACCCAGAG ACCCCAGGGC  
GGCAGCCCCA CCACAGCCT CAGACGAGC CCCTGCTGC CCCTGCGTC ACCGCTCCCT  
GGCTGCAGGA AGGCACTAA GAGGGGCACC CTTGTCCCC GCTTGAAGTC CCTGCACAG  
TGGCCAGAGC GGCAGGACA GATCCCAAAG ATTCCCGGG GGTGTGGCTT TCAATGCTC  
AGGCTCCCC TGCTGTCCG GCTGCAGTGA CTTGGGAGCC AACACCCTCG CTGAGGTTC  
AGGAGCCCCC GCTGGAGGA GCTGGCCCC CAGAGCTGCG GCTGCTGGTG CTGTAACCTG  
GGCCTGGCCC TGAGGTCACT GTGACGAGG CTGGGCTGCC GGTGCCCCAG GTACCAGGA  
GTTGCAATGG GCAGTGCCCG GCGGTGGCG GGGGCATGA ATTTGTGCA GGTCTGCAG  
TACTGAGAAC AGCGTAGAAC CAGTGGCGAT GCGAGGAAGG GGACCGGTAG AGCGGGCTG  
GGTAAGCTC CATCCAGCG GCTGAGGCC TGGTCTCCG AGAGCCTCT CCCCTCCGA  
GACACCGCT ACCTGTGTT AGCGTGGAC CGCCTGCG GGGCTGCG GGGCTCCGG  
CTGGCTTGA CCTGCAGCC CCGCGAGAG GTAGGTCCG CGTGGAGAG GACGGGAGC  
CGGGTCGACT GCGCCCGGG CCCAGCCCC TGAGCCAGCC GCGTGCCAC CACCCGAGA  
CTCCGGCTG AGTACCGCCC GCTGCAGGC ACTGCTGTT GCGGACGACC ACCGCTGCTT  
CACACGATG ACCCGGCCCC TGCTCTGCT GCGGCTGTC GAGCCGCGC CGCTGCTGC  
GCACGGCCAG CTGGACACCG TGCCCTTCCC GCGGCCAGG TCGGCGAGG CACGGGACA  
CGGGGCAGGA GCGGGCGGG GCGGCTGGC CTCGTGGCG CTCTCACTC CTCCAATTGC  
GGGTCCAGG CCATCCGCG AACTCGAGGA GTGCGACCC AGCGCAGACC CTTCTTGA  
GACGCTCAG CGCCTGTGC GGGCGCTGC GGTCCCCCG GCGGGGCC CCGCGCGCG

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CCTGGCCCTG GATCCGACG CGCTGGCGG CTTCGCCAG GGCCTAGTCA ACCTGTGGA  
CCCCGCGGCG CTGGAGCGCC TACTCGACGG CGAGGAGCG CTGCTGCTGC TGCTGAGGCC  
CACTGCGGCC ACCACCGGG ATCTGCGCC CTGCACGAC CCCACGTCCG CGCCGTGGGC  
CACGGCCCTG GCGCGCGCG TGCTGCTGA ACTGCAAGCG GCGGCTGCG AGCTGCGAAG  
CCTCCCGGGT CTGCTCCGG CCACAGCCCC GCTGCTGGCG CGCTGCTCG CGCTCTGCC  
AGGAGGCCCC GCGGCGCTCG GCGATCCCTT GCGAGCGCTG CTGCTCTGA AGGCGCTGCA  
GGGCTTGGC GTGAGTGGC GCGGCGGGA TCCGCGCGG CCGGCTCGG CACAGCGCAG  
CGCGGGGGCC ACCGCGCGG ACGGGCGTG CGCGTGGCG GAGCTCAGCG TAGACCTCCG  
CGCGAGGGC TCCGTACTCA TCCCGAGAC CTACCAGGCC ACAATTGCC AGGCGTGTG  
CGGCTGGCT CAGTCCGACC GCAACCGCG CTACGGCAAC CACGTGGTGC TGCTGCTGAA  
GATGCAGGC CGTGGGCGG CCTGGCGCG CCCACCTGC TGCGTGCCA CCGCTACGC  
GGGCAAGCTG CTCATCAGCC TGTCGGAGGA ACGCATCAG GCGCACCAAG TGCCCAACAT  
GTGGGCCACC GAGTGTGGCT GCGGTGACC CTGCGCGCG GCGACTCCT GCGCGAGGG  
TCCGAGCGG CCCCAGCTCG CGCCCCCTCC CATATTATT CGGACCCCA GCATCGCCCC  
AATAAGACC AGCAAGC

(the sequence of human cDNA) (SEQ ID NO:2);

CAAGGTATG TCCAGGAGG AGATAGGAC CGCCCTGCAC CACAAACAGC TCTGCTCCCT CTTATAAAGT AGGGCAGCCC  
AGCCCCTGA  
AGCTCCAGG ATGCCGGTC CATCTCTCTC TCTGGCCCTG GTCTGTGCG CCATGGGGGG  
TCTGCTGAGG CCAGGAGCC CCAGGGAAGA AGTCTTCAGC ACCTCAGCCT TGCCAGGGA  
GCAGGCCACA GGCAGCGGG CACTCATCTT TCAGCAAGCC TGCGACTGGC CACTCTCCAG  
TCTCTGGCTG CCAGGAGCC CTCTGGACCC CTGTGCTTG GTGACCTGC ATGGGAGTGG  
CAACGGGAGG AGGGCCCCC TGCGGTGGT GGGGTCTG AGCAGCTACG AGCAGGCCTT  
CTTGGAGGCT GTGCGCGCA CCACTGGGG CTTGAGTGAC TTGACCACCT TCGCAGTGTG  
CCCCGCTGGC AACGGGCGC CTGTGCTGCC CCACCTGCAG CGGCTGCAGG CATGGCTGGG  
GGAGCCCGGG GGGCGGTGGT TGGTGTCTCT GCACCTGAGG GAAGTGACGT GGGAGCCAAC  
ACCCTTGTG AGGTTCCAGG AGCCTCCGCC TGGAGGAGCC AGCCCCCAG AGCTGGCGCT  
GCTGGTGGTG TACCAGAGG CTGGCTGGA GGTACTGTC ACCGGGGCTG GGCTACCTGG  
CACCCAGAGC CTCTGCCTGA CGCGGACTC GGAATCTCTG GCCTTGGTGC TGGACCACCC  
GGAGGGGGCC TGGCGCCGGC CTGGGTTAGC CTTACCTG CGCGCCCTG GAAATGGTGC  
GTCCTGAGC ACTGCCAGC TGCAGGCGCT GCTGTTGGT GCGGACTCCC GCTGCTTCAC  
ACGAAGAGCC CCAGCCCTGT TACTCTTGT GCGGCCCCG TCTTCGGCAC CGATGCCCGC  
GCACGTTCG CTGGACTTGG TGCCCTTCCC GCAGCTCAGG GTTCCCCCG AGCCAGAGGA  
GGCACCGCCC AGCGCTGATC CTTCTCTGGA GACTCTCAG CGCTGGTGC GCGCGCTTGC  
GGGACCCCG GCGCGAGCT CGCCACCGCG GCTGGCTTG GACCGGGCG CACTGGCTGG  
TTCCCGCAG GGCCAGGTA ACTGTCTGGA CCCCGGGCC CTGGAGCGCC TGCTGACCG  
CGAGGAGCG CTGCTGCTGC TGCTGCCGCC GACGCGAGCC ACCACCGGG TCCCCGAAC  
GCCGCAAGGT CCCAAGTCCC CTCTGTGGG CGCGGACTA GCGCGCGGG TGCTGCGGA  
GCTTCAGCG GTGGCCCGG AGCTGCTGC CTCCCGGG CTGCTCCAG CTGCCACCC  
GCTGCTGGC CGCTGCTGC CACTGTGCC GGGAAACCA GACAGCCCC GCGGCCCT  
GCGCGCGCT CTGTGCTCA AGCGCTGCA GGGCTGCGC GCTGAGTGGC GCGGGCGGA  
GCGGAGCGC TCTGCACGG CGCAGCGAG CGCGGGGGC GCGGCTGAG ACGGCGCTG  
CGCTCTGCT GAGCTGAGC TAGACCTGCG GGCGGAGCG TCGGTGCTCA TCCCCGAGC  
ATACAGGCC AACAACTGCC AGGGGCGCT CGGCTGGCT CAGTCGAGC GCAACCGCG  
CTACGGCAAC CACGTGGTGC TGCTGCTAAA GATGAGGCC CGCGGCGCA CCTGGCGCG

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CCCGCCCTGC TGTGTGCCCA CAGCCTACAC CGGCAAGCTC CTCATCAGCC TGTCGGAGGA  
GCGCATCAGT GCGCACCACG TCCCAAACAT GGTGGCCACC GAATGCGGCT GCCGGTGACC  
TCCGCCCGTG CTCCTCGTGC TGCCCCGSCC CGTATTATT CGGACCCCGT CATTGCCCCA  
TAAACACGG GAAGGC

(the sequence of the bovine gene) (SEQ ID NO:3);

ASCTCCAGG ATGCCCGTC CATCTCTCTC TCIGGCCCTG GTGCTGTGG CCATGGGGG  
TCTGCTGAGG CCAAGGACCC CAGGGAAGA AGTCTTCAG ACCTCAGCTI TGCCAGGGA  
GCAGGCCACA GGCAGCGGG CACTCATCTT TCAGCAAGCC TGGACTGGC CACTCTCCAG  
TCTCTGGCTG CCAAGCAGCC CTCTGACCC CCTGTSCCTG GTGACCCTGC ATGGAGTGG  
CAACGGGAGC AAGGCCCCCTG TGGGGTGGT GGGGGTCTG AGCAGCTAGC AGCAGGCCTT  
CCTGGAGGCT GTGCGGCCCA CCCACTGGGG CCTGAATGAC TTGACCACCT TCGAGTGTG  
CCCCGCTGGC AACGGGACG CTGTGCTGCC CCACCTGCAG CCGCTGCAGG CATGGCTGGG  
GGAGCCGGG GGGCGGTGGC TGGTGGTCTT GCACCTGGAG GAAGTGACCT GGGAGCCAC  
ACCTTGCTG AGGTTCAGG AGCCTCCGCC TGGAGGAGCC AGCCCCCAG AGCTGGCGCT  
ECTGGTGGT TACCCAGGCG CTGGCTGGA GGTCACTGTC ACCGGGGCTG GGCTACCTGG  
CACCCAGAGC CTCTGCCTGA CCGCGGACTC GGAATTCCTG GCCTTGGTGG TGGACACCC  
GGAGGGGGC TGGCGCCGCG CTGGCTAGC CTTACCCCTG CGCGCGCTG GAATGCTGG  
GCTCTGAGC ACTGCCAGC TGCAGGCGCT GCTGTTCGGT GCGGACTCC GCTGCTTAC  
ACGAAAGACC CAGCCCTGT TACTCTGTCT GCGGCGCCG TCTTCGGAC CGATGCCCG  
GCACGCTCG CTGGACTGG TGCCCTTCCC GCAGCCAGG GCTTCCCCG AGCCAGAGGA  
GGCAGCGCC AGCGCTGATC CTTCTGGA GACTCTCAG CGCCTGGTGC GCGCGCTTG  
GGGACCCCG GCGGAGGCT CGCCACGCG ECTGGCCTG GACCGGGCG CACTGGCTG  
TTTCCGCGAG GGCAGGTCA ACCTGTGGA CCGCGCGCC CTGGAGCGC TGCTGGACG  
CGAGGAGCG CTGCTGTGCT TGCTGCGCC GACGGCAGC ACCACGGGG TCCCGCAAC  
GCGCAAGGT CCAAGTCCC CTCTGTGGC CGCGGACTA GCGCGCGGG TGGCTGCCGA  
GCTTCAGCG GTGCGCGCG AGCTGCGTGC CCTCCGCGG CTGCTCCAG CTGCCCCACC  
GCTGCTGGG CGCTGTGCT CACTGTGCC GGGAAACCA GACAGCCCC GCGGCCGCT  
GCGCGCGCT CTGCTGTGCA AAGCGCTGCA GGGCTGCGC GCTGAGTGG CCGGGCGGA  
GCGGAGCGC TCTGCACGG CCGAGCGCAG CGCGGGGCC GCGCTGCAG ACGGGCGTG  
CGCTCTGCT GAGCTGAGC TAGACCTGCG GCGGAGCGC TCGGTGCTCA TCCCGAGAC  
ATACCAGGC AACAACTGCC AGGGGGCTG CGGCTGGCT CAGTCGGAC GCAACCGCG  
CTACGGCAAC CAGGTGGTGC TGCTGCTAAA GATGCAGGCC CCGGGGCCA CCTGGCGG  
CCCGCCCTGC TGTGTGCCA CAGCCTACAC CGGCAAGCTC CTCATCAGC TGTCCGAGGA  
GCGCATCAGT GCGCACCACG TCCCAAACAT GGTGGCCACC GAATGCGGCT GCCGGTGACC  
TGGCGCGTG CTCCTCGTGC TGCCCCGSCC CGTATTATT CGGACCCCGT CATTGCCCCA  
TAAACACGG GAAGGC

(the sequence of bovine cDNA) (SEQ ID NO:4); and

(b) DNA sequences which hybridize to the aforementioned DNA sequences and which code on  
expression for a human MIS-like polypeptide or a bovine-like polypeptide and preferably have a  
substantial degree of homology (more preferably, at least about 70% homology and most preferably at  
least about 80% homology) and the aforementioned DNA sequences; and

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(c) DNA sequences which code on expression for a polypeptide code for on expression by any of the foregoing DNA sequences. Recombinant DNA molecules containing these DNA sequences, hosts transformed with them and MIS-like polypeptides coded for on expression by them are also part of this invention.

The DNA sequences, recombinant DNA molecules, hosts and processes of this invention enable the production of MIS-like polypeptides for use in the treatment of ovarian cancer and other suitable cancers.

Also within the scope of the present invention are the polypeptide selected from the group consisting of

MRDLPLTSLALVLSALGALLGTEALRAEPAVGTSGLI FREDLD  
WPPGIPQEP LCLVALGGDSNGSSSPLRVVGALSAYEQAF LGAVQRARWGPRDLATFGV  
CNTGDRQAALPSLRRLGAWLRDPGGQRLVVLHLEEV TWEPTPSLR FQEP PPGGAGPPE  
LALLVLYPGPGPEVT VTRAGLPGAQSLCPSRDTRYLVLA VDRPAGAWRGSGLALTLP  
RGEDSRLSTARLQALLFGDDHRCFTRMTPALLLLPRSEPA PLPAHGQLDTPFPFPPRP  
SAELEESPPSADPFLET LTRLVRLRVPPARASAPRLALDP DALAGFPQGLVNLSDPA  
ALERLLDGEEPLLLL RPTAATTGDPAPLHDPTSAPWATALARRVAAELQAAA AELRS  
LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLL LKALQGLRVEWRGRDPRGP GRAQ  
RSAGATAADGPCALRELSVDLRAKRSVLI PETYQANNCQGVCGWPQSDRNPRYGNHVV  
LLLKMQARGAALARPPCCVPTAYAGKLLISLSEERISAHHVPNMVATECGCR

(the complete amino acid sequence of human MIS protein) (SEQ ID NO: 5);

RAEPAVGTSGLI FREDLD  
WPPGIPQEP LCLVALGGDSNGSSSPLRVVGALSAYEQAF LGAVQRARWGPRDLATFGV  
CNTGDRQAALPSLRRLGAWLRDPGGQRLVVLHLEEV TWEPTPSLR FQEP PPGGAGPPE  
LALLVLYPGPGPEVT VTRAGLPGAQSLCPSRDTRYLVLA VDRPAGAWRGSGLALTLP  
RGEDSRLSTARLQALLFGDDHRCFTRMTPALLLLPRSEPA PLPAHGQLDTPFPFPPRP  
SAELEESPPSADPFLET LTRLVRLRVPPARASAPRLALDP DALAGFPQGLVNLSDPA  
ALERLLDGEEPLLLL RPTAATTGDPAPLHDPTSAPWATALARRVAAELQAAA AELRS  
LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLL LKALQGLRVEWRGRDPRGP GRAQ

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RSAGATAADGPCALRELSVDLRAERSVLIPIETYQANNCQGVCGWPQSDRNPYGNHVV

LLKMQARGAALARPPCCVPTAYAGKLLISLSEERISAHVPMNVATECGCR

(the amino acid sequence of mature human MIS protein) (SEQ ID NO: 6):

MPGPSLSLALVLSAMGALLRPGTPREEVFSTALPREQATGSGA

LIFQQAWDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVR

RTHWGLSDLTTFAVCPAGNGQPVLPHLQRLQAWLGEPPGGRWLVVLHLEEVTWEPTPLL

RFQBPFGGASPELALLVVYPGPGLEVTVTGAGLPGTQSLCLTADSDFLALVVDHPE

GAWRPGLALTLRRRGNGALLSTAQLQALLFGADSRCPTRKTPALLLLLPARSSAPMP

AHGRDLVFPFPQPRASPEPEEAPPSADPFLETTLRLVRLAGPPARASPPRLALDPGA

LAGFPQGQVNLSDPAALERLLDGEEPLLLLLPPTAATTGVPATPQGPKSPLWAAGLAR

RVAELQAVAAELRALPGLPPAAPLLARLLALCPGNPDSPPGGLRALLLLKALQGLR

AEWRGRERSGSARAORSAGAAAADGPCALRELSVDLRAERSVLIPIETYQANNCQACG

WPQSDRNPYGNHVVLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPM

NVATECGCR

(the complete amino acid sequence of bovine MIS protein) (SEQ ID NO: 7):

REEVFSTALPREQATGSGA

LIFQQAWDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVR

RTHWGLSDLTTFAVCPAGNGQPVLPHLQRLQAWLGEPPGGRWLVVLHLEEVTWEPTPLL

RFQEPFGGASPELALLVVYPGPGLEVTVTGAGLPGTQSLCLTADSDFLALVVDHPE

GAWRPGLALTLRRRGNGALLSTAQLQALLFGADSRCPTRKTPALLLLLPARSSAPMP

AHGRDLVFPFPQPRASPEPEEAPPSADPFLETTLRLVRLAGPPARASPPRLALDPGA

LAGFPQGQVNLSDPAALERLLDGEEPLLLLLPPTAATTGVPATPQGPKSPLWAAGLAR

RVAELQAVAAELRALPGLPPAAPLLARLLALCPGNPDSPPGGLRALLLLKALQGLR

AEWRGRERSGSARAORSAGAAAADGPCALRELSVDLRAERSVLIPIETYQANNCQACG

WPQSDRNPYGNHVVLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPM

NVATECGCR

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(the amino acid sequence of mature bovine MIS protein) (SEQ ID NO: 8); and

MIS-like polypeptides related thereto.

The C- terminal amino acid and nucleotide sequences for bovine MIS are shown in FIG. 17 of U.S. Patent No. 5,661, 126, which is hereby incorporated by reference in its entirety. Fig. 17 shows the amino acid (SEQ ID NO:2, herein referred to as SEQ ID NO:9) and nucleotide (SEQ ID NO:1, herein referred to as SEQ ID NO:10) sequences of bovine MIS C-fragment, having about 109 amino acids. The C-terminal amino acid and nucleotide sequences for human MIS are shown in FIG. 18 of U.S. Patent No. 5,661, 126. Fig 18 shows the amino acid (SEQ ID NO:4, herein referred to as SEQ ID NO:11) and nucleotide (SEQ ID NO:3, herein referred to as SEQ ID NO:12) sequences of human MIS C-terminal fragment, having about 109 amino acids. A comparison of the amino acid sequence for human and bovine MIS, showing the - and C- terminal domains is shown in Cate et al., Handbook of Experimental Pharmacology 95/II: 184, edited by M.B. Spoon and A.B. Roberts, Springer-Verlag Berlin Heidelberg (1990), which are hereby incorporated by reference.

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